

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in this application.

LISTING OF CLAIMS:

1. (Currently Amended) A guide wire comprising:

a first wire disposed on a distal side of said guide wire, said first wire being made from a reshappable and non-superelastic metal material, said first wire possessing a proximal tip and a distal end;

said first wire being configured to be plastically deformed to a desired shape and maintained in the desired shape upon being bent in the desired shape by a user, the first wire not being a coil, the first wire possessing an outer diameter; and

a second wire disposed on a proximal side from said first wire, said second wire being made from a pseudo-elastic alloy, said second wire possessing a distal tip, the second wire possessing an outer diameter;

wherein the proximal tip of said first wire and the distal tip of said second wire are coaxial; and

wherein the first wire includes a proximal end face and the second wire includes a distal end face, the proximal end face of the first wire and the distal end face of the second wire abutting one another and being welded to one another to form a welded portion; and

each of the outer diameters of said first wire and said second wire is gradually reduced in a direction toward the distal end of the first wire in a region extending

from a position on the proximal side from the welded portion to a position on the distal side from said welded portion across said welded portion.

2. (Previously Presented) A guide wire according to claim 1, further comprising:

a third wire disposed on the proximal side from said second wire, said third wire being made from a material having an elastic modulus larger than an elastic modulus of a material forming said second wire;

wherein said second wire and said third wire are joined to each other by welding.

3. (Canceled)

4. (Withdrawn) A guide wire according to claim 1, wherein said first wire has a small cross-sectional area portion having a cross-sectional area smaller than a cross-sectional area of a distal end portion of said second wire in the vicinity of a welded portion between said first wire and said second wire.

5. (Withdrawn) A guide wire according to claim 1, further comprising:

an overlapping portion in which a proximal end portion of said first wire and a distal end portion of said second wire are overlapped to each other in the axial direction of said first and second wires;

wherein said first wire and said second wire are welded to each other in said overlapping portion.

6. (Withdrawn) A guide wire according to claim 1, further comprising:
a rigidity imparting member for increasing a flexural rigidity of the vicinity of a distal end portion of said second wire in the vicinity of the proximal side of a welded portion between said first wire and said second wire covering the outer periphery of said second wire.

7-11. (Canceled)

12. (Previously Presented) The guide wire according to claim 1, further comprising:

a third wire disposed on the proximal side from said second wire, said third wire being made from a material having an elastic modulus larger than an elastic modulus of a material forming said second wire.

13. (Previously Presented) The guide wire according to claim 1, wherein said first wire possesses a length in a range of 10 to 1,000 mm.

14. (Previously Presented) The guide wire according to claim 13, wherein said length of the first wire is a range of 10 to 50 mm.

15. (Previously Presented) The guide wire according to claim 13, wherein said length of the first wire is in a range of 100 to 300 mm.

16. (Previously Presented) The guide wire according to claim 1, wherein said welding is butt resistance welding.

17. (Previously Presented) The guide wire according to claim 1, wherein said welding is spot welding.

18. (Previously Presented) The guide wire according to claim 1, wherein the proximal end face of the first wire and the distal end face of the second wire are nearly perpendicular to the axial direction of both the first and second wires.

19. (Currently Amended) The guide wire according to claim 1, further comprising:

a spiral coil covering at least a distal end portion of the first wire, the spiral coil comprising a proximal end and a distal end, a first fixing material fixing the distal end of the spiral coil to the first wire, a second fixing material fixing the spiral coil to the first wire, the second fixing material being proximally spaced from the first fixing material.

20. (Previously Presented) The guide wire according to claim 19, wherein the welded portion between said first wire and said second wire is located on the proximal side of a proximal end of the coil.

21. (Previously Presented) The guide wire according to claim 19, wherein the welded portion between the first wire and the second wire is located on a distal side of a proximal end of the coil.

22. (Canceled)

23. (Previously Presented) The guide wire according to claim 2, said third wire is made from a stainless steel or a cobalt alloy.

24. (Previously Presented) A guide wire comprising:

a first wire disposed on a distal side of said guide wire, said first wire being made from a reshappable and non-superelastic metal material, said first wire possessing a proximal tip;

said first wire being configured to be plastically deformed to a desired shape and maintained in the desired shape upon being bent in the desired shape by a user, the first wire not being a coil;

a spiral coil covering at least a distal end portion of said first wire;

a second wire disposed on a proximal side from said first wire, said second wire being made from a pseudo-elastic alloy, said second wire possessing a distal tip;

wherein the proximal tip of said first wire and the distal tip of said second wire are welded to each other at a welded portion;

the welded portion comprising a fused layer formed with said first wire and said second wire;

the welded portion between said first wire and said second wire being located on a distal side of a proximal end of said spiral coil;

the proximal tip of said first wire and the distal tip of said second wire are coaxial; and

the first wire includes a proximal end face and the second wire includes a distal end face, the proximal end face of the first wire and the distal end face of the second wire abutting one another and being welded to one another to form the welded portion.

25-26. (Canceled)

27. (Currently Amended) The guide wire according to Claim [[25]] 24, further comprising a first fixing material fixed to a distal end of the spiral coil and a distal end of the first wire to fix the distal end of the spiral coil to the distal end of the first wire, and a second fixing material fixing a portion of the spiral coil other than the proximal end of the spiral coil to the first wire.

28. (Previously Presented) A guide wire comprising:
a first wire disposed on a distal side of said guide wire, said first wire being made from a reshappable metal material, said first wire possessing a proximal tip;
said first wire being configured to be plastically deformed to a desired shape and maintained in the desired shape upon being bent in the desired shape by a user, the first wire not being a coil;

a second wire disposed on a proximal side from said first wire, said second wire being made from a pseudo-elastic alloy, said second wire possessing a distal tip;

wherein the proximal tip of said first wire and the distal tip of said second wire are welded to each other at a welded portion;

said first wire being made from a material having an elastic modulus larger than an elastic modulus of the material forming said second wire;

the proximal tip of said first wire and the distal tip of said second wire are coaxial;

the first wire includes a proximal end face and the second wire includes a distal end face, the proximal end face of the first wire and the distal end face of the second wire abutting one another and being welded to one another to form the welded portion;

a third wire disposed on the proximal side from said second wire, said third wire being made from a material having an elastic modulus larger than the elastic modulus of the material forming said second wire; and

wherein said second wire and said third wire are joined to each other.

29. (Canceled)

30. (Previously Presented) The guide wire according to claim 24, wherein the spiral coil covers the welded portion and is spaced outwardly away from the welded portion.

31. (Canceled)

32. (Previously Presented) The guide wire according to claim 24, wherein at least a portion of the spiral coil is located distally beyond a distal end of the welded portion.

33. (Previously Presented) The guide wire according to claim 24, wherein the spiral coil possesses an axial extent greater than an axial extent of the welded portion.

34. (Previously Presented) The guide wire according to claim 24, wherein the spiral coil possesses a distal end portion, a proximal end portion and an intermediate portion, and further comprising a first fixing material that fixes the intermediate portion of the spiral coil to the first wire.

35. (Previously Presented) The guide wire according to claim 34, and further comprising a second fixing material that fixes the distal end portion of the spiral coil to the first wire.

36. (New) The guide wire according to claim 1, wherein the guide wire possesses a rounded distal-most end, and the first wire made of reshaping and non-superelastic metal material possesses a distal end that is fixed to fixing material possessing a rounded end, the rounded end of the fixing material providing the guide wire with said rounded distal-most end.

37. (New) The guide wire according to claim 36, wherein the outer diameter of the first wire from the proximal end of the first wire to the distal end of the first wire is not greater than the outer diameter of the welded portion.

38. (New) The guide wire according to claim 1, wherein the first wire possesses a distal end portion fixed to a rounded fixing material forming a rounded distal-most end of the guide wire, the outer diameter of the first wire gradually reducing from the proximal end of the first wire to the fixing material.

39. (New) The guide wire according to claim 24, wherein the guide wire possesses a rounded distal-most end, and the first wire made of reshappable and non-superelastic metal material possesses a distal end that is fixed to fixing material possessing a rounded end, the rounded end of the fixing material providing the guide wire with said rounded distal-most end.

40. (New) The guide wire according to claim 39, wherein the outer diameter of the first wire from the proximal end of the first wire to the distal end of the first wire is not greater than the outer diameter of the welded portion.

41. (New) The guide wire according to claim 24, wherein the first wire possesses a distal end portion fixed to a rounded fixing material forming a rounded distal-most end of the guide wire, the outer diameter of the first wire gradually reducing from the proximal end of the first wire to the fixing material.

42. (New) A guide wire comprising:

a first wire disposed on a distal side of said guide wire, said first wire being made from a reshaping and non-superelastic metal material, said first wire possessing a proximal tip;

said first wire being configured to be plastically deformed to a desired shape and maintained in the desired shape upon being bent in the desired shape by a user, the first wire not being a coil;

a spiral coil covering at least a distal end portion of the first wire;

a second wire disposed on a proximal side from said first wire, said second wire being made from a pseudo-elastic alloy, said second wire possessing a distal tip;

the proximal tip of said first wire and the distal tip of said second wire are coaxial;

the first wire includes a proximal end face and the second wire includes a distal end face, the proximal end face of the first wire and the distal end face of the second wire abut one another and are welded to one another to form a welded portion;

the welded portion between said first wire and said second wire is located on the proximal side of a proximal end of the coil.

43. (New) The guide wire according to claim 42, wherein the outer diameter of the first wire from the proximal end of the first wire to the distal end of the first wire is not greater than the outer diameter of the welded portion.

44. (New) The guide wire according to claim 43, wherein the first wire possesses a distal end portion fixed to a rounded fixing material forming a rounded distal-most end of the guide wire, the outer diameter of the first wire gradually reducing from the proximal end of the first wire to the fixing material.